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INCIDENCE OF ILLNESS AMONG MALE INDUSTRIAL EMPLOYEES IN 1933 AS COMPARED WITH EARLIER YEARS

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The frequency of cases of sickness causing absence from work for more than 1 week among a group of 152,203 male industrial employees was lower in 1933 than in any other year since 1921, when the record was started. Compared with 1932, the decrease in sickness incidence was substantial. This result is somewhat surprising, since the 1932 rates were below the average for the 5 preceding years.

The group under consideration is composed of male employees of 38 industrial firms, most of which are located in the North Central, North Atlantic, and New England States; but a number of employees of these companies are scattered in almost all parts of the country. The records on which the present report is based are those of sick-benefit organizations maintained either by the company or by its employees, or cooperatively by both.

It is possible, of course, that the sickness rates might be higher if unemployed persons were included, but this consideration does not invalidate the year-to-year comparisons of sickness frequency among men working on a full-time or part-time basis. To some extent the decrease may be due to selection; i.e., workmen on the pay rolls now may be somewhat healthier as a group than those employed in 1928 and 1929, when the demand for labor was greater. Selection, however, does not appear to be the all-important factor in the decreasing incidence of illness in our sample of the industrial population on account of the fact that the rates for certain important diseases which will be mentioned later were as high in 1932 and 1933 as in 1928 and 1929.

The first month of 1933 was characterized by an outbreak of influenza, but the epidemic was so short-lived that the rate for the year as a whole was below the average frequency of this disease during the 10 preceding years. The influenza mortality rate in 1933 was

also less than the average for the 10 preceding years.[1] Because influenza is of such numerical importance, the incidence rate of respiratory diseases, as a whole, fell well below the average, both for the 5 and for the 10 years preceding 1933. As an index of health conditions aside from influenza, the rate for all illnesses except influenza is shown in table 1. In 1933 this rate was the lowest of any year of record.

TABLE 1.—*Frequency of specified causes of disability lasting 8 consecutive calendar days or longer per 1,000 male industrial workers representing various industries, by years, from 1928 to 1933, inclusive* [1]

Year in which disability began	Sickness and non-industrial injuries [2]		Sickness		Respiratory diseases [3]		Sickness exclusive of influenza		Non-respiratory diseases		Average number of men, all reporting establishments
	A	B	A	B	A	B	A	B	A	B	
1928	113.4	111.2	102.5	100.2	50.6	48.8	73.4	72.8	51.9	51.4	163,557
1929	112.4	110.6	99.9	98.1	47.8	46.8	73.9	71.9	52.1	51.3	194,451
1930	94.1	93.8	81.8	81.6	32.0	32.3	68.5	68.2	49.8	49.3	188,714
1931	94.6	93.2	82.2	81.1	34.9	34.8	63.3	62.1	47.3	46.3	171,694
1932	97.5	94.7	84.9	82.3	37.6	37.0	62.9	60.4	47.3	45.3	163,979
1933	82.3	76.8	71.0	66.2	28.6	25.6	55.7	53.0	42.4	40.6	152,203
5 preceding years [4]	102.4	100.7	90.3	88.7	40.6	40.0	68.4	67.1	49.7	48.7	176,480

[1] For the record 1921 to 1927, inclusive, see Public Health Reports, vol. 47, no. 18, Apr. 29, 1932, pp. 997–1001.
[2] Industrial accidents and venereal diseases are not reported.
[3] Title nos. 11, 23, 104–115a, in the International List of Causes of Death, fourth revision, Paris, 1929.
[4] 1928 to 1932, inclusive.

A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec. 31, 1933.

The rates for bronchitis and for diseases of the pharynx and tonsils in 1933 fell to about 63 percent of the average for the 5 preceding years. So precipitous is this decline in incidence that one might well view the figures with skepticism were it not for the fact that the more serious respiratory diseases such as pneumonia and tuberculosis show decreases that are proportionately almost as large. One searches in vain for a pneumonia case rate that was lower than the one recorded for 1933. Mortality from pneumonia also appears to have reached a new minimum. The Metropolitan Life Insurance Co. states that a year (1933) which began with an influenza epidemic closed with the lowest pneumonia death rate in the history of insured wage earners.[2]

The frequency of new cases of respiratory tuberculosis in the industrial group under consideration was about 30 percent below the average for the 10 years preceding 1933. This result is not as spectacular as the reduction in tuberculosis mortality, amounting to 20 percent since 1930 in the industrial population of the country.[3]

[1] *Cf.* Statistical Bulletin, Metropolitan Life Insurance Co., vol. XV, no. 1, January 1934, p. 5.
[2] Idem.
[3] Ibid., p. 4.

TABLE 2.—*Frequency of specified respiratory diseases which caused disability for 8 consecutive calendar days or longer per 1,000 industrial workers representing various industries, by years, from 1928 to 1933, inclusive* [1]

Year in which disability began	Influenza and grippe (11)		Bronchitis, acute and chronic (106)		Diseases of the pharynx and tonsils (115a)		Pneumonia, all forms (107–109)		Tuberculosis of the respiratory system (23)		Other diseases of the respiratory system (104–105, 110–114)	
	A	B	A	B	A	B	A	B	A	B	A	B
1928	29.1	27.4	5.7	5.7	5.9	5.7	3.4	3.4	1.1	1.2	5.4	5.4
1929	26.0	26.2	5.3	5.2	7.2	6.3	3.1	3.2	1.2	1.1	5.0	4.8
1930	13.3	13.4	4.6	4.8	6.0	5.8	2.5	2.7	1.1	1.1	4.5	4.5
1931	18.9	19.0	3.6	3.6	5.2	5.0	2.1	2.2	1.0	1.0	4.1	4.0
1932	22.0	21.9	3.6	3.5	4.5	4.4	2.0	2.0	1.0	1.0	4.5	4.2
1933	15.3	13.2	2.9	2.8	3.9	3.4	1.8	1.7	.8	.8	3.9	3.7
5 preceding years	21.9	21.6	4.6	4.6	5.7	5.4	2.6	2.7	1.1	1.1	4.7	4.6

[1] For the record 1921 to 1927, inclusive, see Public Health Reports, vol. 47, no. 18, Apr. 29, 1932, pp. 997–1001.

A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec. 31, 1933.
Numbers shown in parentheses are disease title numbers from the International List of Causes of Death, fourth revision, Paris, 1929.

In 1933 the rate for digestive diseases as a whole was approximately 18 percent below the average for the 5 preceding years. The important disease categories within this group, such as diseases of the stomach, diarrhea and enteritis, appendicitis, and hernia, show decreases of similar magnitude from the 5-year average.

TABLE 3.—*Frequency of specified diseases of the digestive system which caused disability for 8 consecutive calendar days or longer per 1,000 male industrial workers representing various industries, by years, from 1928 to 1933, inclusive* [1]

Year in which disability began	Digestive diseases, total (115b–129)		Diseases of the stomach, except cancer (117–118)		Diarrhea and enteritis (120)		Appendicitis (121)		Hernia (122a)		Other digestive diseases (115b, 116, 122b–129)	
	A	B	A	B	A	B	A	B	A	B	A	B
1928	14.6	14.5	4.7	4.8	1.3	1.2	4.2	4.2	1.8	1.7	2.6	2.6
1929	15.6	15.6	4.7	4.7	1.5	1.4	4.5	4.5	1.8	1.9	3.1	3.1
1930	14.8	14.5	4.7	4.7	1.5	1.5	4.0	3.7	1.7	1.8	2.9	2.8
1931	13.4	12.9	4.0	3.6	1.2	1.2	3.7	3.5	1.8	1.9	2.7	2.7
1932	13.3	12.6	4.0	3.7	1.0	1.0	3.4	3.3	1.9	1.9	3.0	2.7
1933	12.1	11.1	3.3	3.3	1.0	1.0	3.3	3.0	1.3	1.3	3.2	2.5
5 preceding years	14.3	14.0	4.4	4.3	1.3	1.3	4.0	3.8	1.8	1.8	2.8	2.8

[1] For the record 1921 to 1927, inclusive, see Public Health Reports, vol. 47, no. 18, Apr. 29, 1932, pp. 997–1001.

A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec 31, 1933.
Numbers in parentheses are disease title numbers from the International List of Causes of Death, fourth revision, Paris, 1929.

For nonrespiratory, nondigestive diseases as a whole, a decrease in frequency amounting to about 15 percent below the average for the 5 preceding years is indicated. Within this broad disease category however, not all subgroups participated in the decreased incidence of illness. The rate for diseases of the circulatory system in 1933 was practically the same as during the period 1928–32. A further subgroup, diseases of the heart, shows a lower rate than in 1932, but virtually the same incidence as the average for the 5 years preceding 1933, and a greater frequency than in any year of record prior to 1927. No change occurred in the frequency of diseases of the genitourinary system except nephritis for which the rate was somewhat lower than during immediately preceding years. No improvement is indicated in the cancer situation. The frequency of neurasthenia and kindred conditions decreased in 1933 as compared with 1932 and earlier years, but the rate for other diseases of the nervous system, which include such serious ailments as mental disease and cerebral hemorrhage, was slightly higher during the past year. On the favorable side may be mentioned decreases in the incidence of rheumatism (acute and chronic), diseases of the organs of locomotion, diseases of the veins, diseases of the skin, and the infectious and parasitic group of diseases.

Mortality records, insofar as they can be used for the purpose, indicate that the vitality of the American people has to date remained unimpaired in spite of the hardships which severe economic depression entails. The sickness records presented herewith indicate greater freedom from attacks of disease among men on the pay rolls of 38 large companies during the past 3 or 4 years than in the years immediately preceding the depression.

TABLE 4.—*Frequency of specified nonrespiratory, nondigestive diseases which caused disability for 8 consecutive calendar days or longer per 1,000 male industrial workers representing various industries, by years, from 1928 to 1933, inclusive* [1]

Year in which disability began	Nonrespiratory, nondigestive diseases, total		Diseases of the circulatory system, except diseases of the veins (90–99, 101–103)		Diseases of the veins (100)		Diseases of the heart (90–95)		Nephritis, acute and chronic (130–132)	
	A	B	A	B	A	B	A	B	A	B
1928	37.3	36.9	3.4	3.5	1.7	1.7	2.1	2.1	0.8	0.8
1929	36.5	35.7	3.4	3.5	1.7	1.7	2.2	2.3	.8	.8
1930	35.0	34.8	3.4	3.4	1.6	1.6	2.1	2.1	.7	.8
1931	33.9	33.4	3.2	3.2	1.8	1.5	2.0	2.1	.7	.7
1932	34.0	32.7	3.7	3.6	1.8	1.7	2.5	2.4	.8	.8
1933	30.3	29.5	3.4	3.2	1.4	1.4	2.1	2.1	.5	.6
5 preceding years	35.4	34.7	3.4	3.4	1.7	1.6	2.2	2.2	.8	.7

[1] For the record 1921–1927, inclusive, see Public Health Reports, vol. 47, no. 18, Apr. 29, 1932, pp. 997–1001.

A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec. 31, 1933.

Numbers shown in parentheses are disease title numbers from the International List of Causes of Death, fourth revision, Paris, 1929.

TABLE 4.—*Frequency of specified nonrespiratory, nondigestive diseases which caused disability for 8 consecutive calendar days or longer per 1,000 male industrial workers representing various industries, by years, from 1928 to 1933, inclusive*—Continued

Year in which disability began	Other diseases of the genito-urinary system and annexa (133–138)		Neuralgia, neuritis, sciatica (87a)		Neurasthenia and the like (87b)		Other diseases of the nervous system (78–85)		Diseases of the organs of vision (88)	
	A	B	A	B	A	B	A	B	A	B
1928	2.2	2.2	2.2	2.2	1.4	1.4	1.0	1.0	1.1	1.1
1929	2.2	2.1	2.5	2.5	1.3	1.2	1.1	1.0	1.0	1.0
1930	2.4	2.3	2.3	2.2	1.2	1.2	1.0	1.1	1.1	1.1
1931	2.3	2.2	2.1	2.1	1.5	1.4	1.1	1.3	1.0	1.0
1932	2.3	2.1	2.3	2.3	1.3	1.1	1.2	1.2	.9	.8
1933	2.2	2.1	2.1	1.9	.8	.8	1.4	1.3	.8	.8
5 preceding years	2.3	2.2	2.3	2.3	1.3	1.3	1.1	1.1	1.0	1.0

Year in which disability began	Diseases of the ears and of the mastoid process (89)		Rheumatism, acute and chronic (56, 57)		Diseases of the organs of locomotion except diseases of the joints (156b)		Diseases of the skin (151–153)		Infectious and parasitic diseases [2] (1–10, 12–22, 24–33, 36–44)	
	A	B	A	B	A	B	A	B	A	B
1928	0.7	0.7	6.4	6.3	4.0	3.9	4.4	4.4	4.0	3.9
1929	.7	.6	5.6	5.6	3.9	3.9	4.2	4.2	3.9	3.5
1930	.5	.5	5.6	5.6	3.5	3.5	3.8	3.8	3.8	3.5
1931	.7	.6	5.4	5.4	3.3	3.5	3.2	3.3	3.3	2.9
1932	.7	.7	5.3	5.5	3.3	3.6	2.7	2.7	2.7	2.1
1933	.6	.6	4.9	4.9	2.8	3.0	2.7	2.6	2.0	1.8
5 preceding years	.7	.6	5.7	5.7	3.6	3.7	3.7	3.7	3.5	3.2

Year in which disability began	Cancer, all forms (45–53)		Other general diseases [3] (54, 55, 59–77)		Diseases of the bones and joints (154–156a)		Ill-defined and unknown causes of disability (200)		Nonindustrial injuries (163–198)	
	A	B	A	B	A	B	A	B	A	B
1928	0.4	0.3	1.2	1.1	0.7	0.7	1.7	1.7	10.9	11.0
1929	.4	.4	1.2	1.2	.8	.7	1.8	1.8	12.5	12.5
1930	.5	.5	1.2	1.2	.7	.8	1.7	1.7	12.3	12.2
1931	.6	.6	1.2	1.2	.6	.6	1.9	1.9	12.4	12.1
1932	.6	.6	1.7	1.7	.4	.5	2.3	1.7	12.6	12.4
1933	.5	.5	1.7	1.6	.5	.6	2.0	1.8	11.3	10.6
5 preceding years	.5	.5	1.3	1.3	.6	.7	1.9	1.7	12.1	12.0

[2] Except influenza, respiratory tuberculosis, and the venereal diseases.
[3] Includes nutritional diseases, diseases of the endocrine glands, diseases of the blood and blood-making organs, chronic poisonings and intoxications.

THE PRODUCTION OF DIBENZANTHRACENE TUMORS IN PURE STRAIN MICE

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Burrows, Hieger, and Kennaway (1) have shown that the compound 1:2:5:6–dibenzanthracene, when injected subcutaneously in lard solution, is capable of producing sarcomas in mice. In their experiments the compound induced tumors in 31 out of 93 mice. Seven primary growths were used for serial transmission experiments, of which two were carried at least as far as the twelfth and sixteenth generation.

Because of the inconsistent results obtained in their transmission experiments and the fact that no mention was made of any particular strain of mice, it is assumed that Burrows, Hieger, and Kennaway did not use pure strain animals. Therefore, it was considered of interest to ascertain the results attending the injection of 1:2:5:6–dibenzanthracene into pure strain mice. The purpose of such an experiment would be twofold: First, to determine whether the compound is capable of inducing tumors in pure strain animals which exhibit a low incidence of spontaneous tumors, as well as in other strains showing a high incidence of spontaneous tumors; second, to determine whether these induced tumors in pure stocks would follow the rule of the genetic theory of transplantation, namely, that a spontaneous tumor arising within an individual of a strain can be transplanted to members of the same strain, but not to members of another strain. This report deals briefly with the results of a single experiment conducted along these lines.

EXPERIMENTAL ANIMALS

All pure strain mice were obtained from the Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. The mice used in the experiment are described below.

Strain A.—Inbred since 1918. Albino mice with a high incidence of spontaneous tumors in breeding females.

Strain M "Leaden."—Inbred since 1921. Color the same as strain D to be described below. These mice show a low incidence of spontaneous tumors.

Strain C_3H.—Inbred since 1921. Color of wild house mice. The breeding females have a high incidence of mammary carcinomas.

Strain CBA.—Inbred since 1921. Color of wild house mice. No tumor has been observed in the mice of this strain for the past 10 generations.

Strain D.—Inbred since 1909. Dilute brown color. Breeding females exhibit an extraordinarily high incidence of spontaneous tumors.

Stock mice.—Mice purchased from a local dealer. Albino mice were used to compare the reaction of "market mice" to pure strain mice when subjected to injections of dibenzanthracene-lard solution.

Only adult mice weighing at least 20 g were used. All female mice were virgins.

TECHNIQUE

A solution of 1:2:5:6–dibenzanthracene in lard was prepared as follows: The lard was filtered at 38° C., and dibenzanthracene was then added in the proportion of 4 mg to each cubic centimeter of lard. The lard was heated to 140° C., at which temperature the compound was completely dissolved. The control lard was also heated to 140° C. Both the dibenzanthracene-lard solution and the control lard were cooled to room temperature and then kept at +4° C. until used. Before using, both were heated to 40° C.

The injections were made by means of an 18-gage needle and a 1-cc syringe. All injections were made subcutaneously in the right axillary region.

EXPERIMENTAL OBSERVATIONS

The experimental animals consisted of 558 mice, distributed among the various strains as follows:

Strain	Number of experimental animals	Number of controls
Strain A	125	63
Strain M	102	50
Strain C_3H	19	10
Strain CBA	58	31
Strain D	23	13
Stock	41	23

The time of injections and amounts given were as follows:

	Cubic centimeter
Aug. 3, 1933	0.25
Aug. 18, 1933	0.25
Nov. 1, 1933	0.50

The first two injections produced subcutaneous lumps which persisted without showing any evidence of being absorbed. Therefore, on October 24, 1933, these masses were broken by pressure. What bearing this procedure had on the final outcome of the experiment is unknown.

The first tumor was noted on November 16, 1933, only 15 days after the last injection. Hence the necessity for the final injection was not established.

Following the appearance of the first tumor, the mice were examined each week, with the exception of the 17th, 21st, and 24th weeks following the first injection. As a routine procedure, any mouse dying was

autopsied and examined macroscopically for the presence of tumor. Pieces from every tumor were fixed in Tellycsniczky's fluid.

The experiment was discontinued on February 8, 1934, just 27 weeks after the initial injection. The results of the experiment are shown in table 1. The lard-control mice are omitted from the table, since none developed tumors during the entire period of observation.

TABLE 1.—*Results of injection of dibenzanthracene in lard*

Strain	Sex	Number of mice injected	Died from other causes	Number of mice developing tumor	Percent	Living on Feb. 8, 1934
A	Male	60	21	27	45	12
A	Female	65	16	31	48	18
M	Male	30	4	20	67	6
M	Female	72	18	18	25	36
C_3H	Male	9	4	5	55	0
C_3H	Female	10	4	6	60	0
CBA	Male	22	12	8	36	2
CBA	Female	36	8	23	64	5
Stock	Male	12	10	2	16	0
Stock	Female	29	11	7	24	11
D	Male	23	3	6	26	14
Total		368	111	153	41	104

It is seen that the dibenzanthracene-lard solution induced tumors in all five pure strain stocks as well as in the "market mice".

The time of appearance of tumors is shown in table 2. It is seen that the greatest number were observed from the nineteenth to the twenty-sixth week.

TABLE 2.—*Time in weeks of the appearance of dibenzanthracene-lard tumors in mice*

Time in weeks		15	16	17	18	19	20	21	22	23	24	25	26	27	Total number of tumors
Strain	Sex	Numbers of tumors observed													
A	Female	2	1	----	3	3	2	----	5	5	----	6	3	1	31
A	Male	2	1	----	----	1	3	----	5	3	----	7	5	----	27
C_3H	Female	1	1	----	----	1	1	----	1	1	----	----	----	----	6
C_3H	Male	1	1	----	----	2	1	----	----	----	----	----	----	----	5
CBA	Female	1	----	----	2	1	3	----	5	4	----	4	2	1	23
CBA	Male	----	----	----	----	----	----	----	1	2	----	4	1	----	8
M	Female	----	----	----	----	----	1	----	4	1	----	6	5	1	18
M	Male	----	----	----	1	2	2	----	6	5	----	1	2	1	20
Stock	Female	1	----	----	1	2	----	----	2	----	----	----	1	----	7
Stock	Male	1	----	----	----	----	----	----	1	----	----	----	----	----	2
D	Male	----	----	----	1	----	----	----	3	1	----	1	----	----	6
Total		9	4	----	8	12	13	----	33	22	----	29	19	4	153

LUNG TUMORS

As stated previously, the mice dying or killed were examined for macroscopic evidence of tumor in sites other than that where the dibenzanthracene-lard solution was injected. A number of tumors were found in the lungs, most of which were verified by histological

examination. The number of lung tumors in the various strains is listed below:

Strain A female	18
Strain A male	11
Strain CBA female	1
Strain M male	1
Stock female	3

It is not clear whether these tumors were metastases or primary lung tumors. One lung tumor was observed in a mouse free of tumor at the site of the dibenzanthracene-lard injections. This problem is receiving further consideration.

HISTOLOGICAL FINDINGS

In all, 50 of the 153 tumors arising at the site of injection were examined microscopically. Practically all were spindle-cell sarcomas. While most of the tumors were composed entirely of spindle cells, a few were of the mixed type, containing, in addition to the common spindle cells, considerable numbers of round or of giant cells. One was apparently a mixture of carcinoma and sarcoma. All sections showed active invasion of voluntary muscle. Further evidence of malignancy was obtained from transmission experiments described below.

TRANSPLANTATION EXPERIMENTS

In conformity with the purpose of the experiment, attempts were made to transplant the induced tumors into normal mice. In all, 11 tumors were transplanted by grafts into mice of the same strain as the animal bearing the tumor, as well as into other pure strains or into stock mice. The usual trocar technique was employed in all these experiments. The results are summarized in table 3.

TABLE 3.—*Results of transplantation experiments of dibenzanthracene-lard tumors*

Experiment no.	Strain in which tumor arose	Strains into which original tumor was transplanted																	
		Strain A			Strain C_3H			Strain CBA			Strain M			Strain D			Stock		
		Number of mice inoculated	Positive	Negative	Number of mice inoculated	Positive	Negative	Number of mice inoculated	Positive	Negative	Number of mice inoculated	Positive	Negative	Number of mice inoculated	Positive	Negative	Number of mice inoculated	Positive	Negative
1	A	8	8	0	8	0	8	----	----	----	----	----	----	8	0	8	8	0	8
2	A	3	3	0	6	0	6	----	----	----	----	----	----	6	0	6	6	0	6
3	A	3	3	0	6	0	6	----	----	----	----	----	----	6	0	6	6	0	6
4	A	3	3	0	3	0	3	----	----	----	----	----	----	5	0	5	----	----	----
5	CBA	----	----	----	5	0	5	5	2	3	----	----	----	6	0	6	----	----	----
6	CBA	----	----	----	5	0	5	5	3	2	----	----	----	----	----	----	----	----	----
7	M	----	----	----	7	0	7	----	----	----	7	7	0	7	0	7	----	----	----
8	M	----	----	----	----	----	----	----	----	----	12	12	0	6	0	6	----	----	----
9	D	----	----	----	7	0	7	----	----	----	----	----	----	14	14	0	----	----	----
10	D	----	----	----	4	0	4	----	----	----	8	0	8	15	15	0	----	----	----
11	C_3H	----	----	----	18	18	0	8	0	8	----	----	----	6	0	6	----	----	----

The results show clearly that the induced tumors are similar to spontaneous tumors arising within a pure stock, since they grew only in mice of the strain in which the tumor had its origin. No difficulty has been encountered in subsequent serial transmission of two of these tumors into animals of the same strain in which they originated.

SUMMARY

The results of the experiment confirm the findings of Burrows, Hieger, and Kennaway in showing that the subcutaneous injection of dibenzanthracene-lard solution induces sarcomas in mice. In addition, it has been shown that this solution induces tumors in pure-strain mice which, under normal conditions, do not develop spontaneous tumors. Thus, it is shown that the genetic constitution of a pure strain of mice does not prevent the cells from becoming malignant when exposed to this carcinogenic agent.

Transmission experiments demonstrate that the induced tumors grow only in mice of the same strain in which they originated. In this respect they are similar to spontaneous tumors arising in pure-strain mice.

REFERENCE

(1) Burrows, H., Hieger, I., and Kennaway, E. L.: Am. Jour. Cancer, *16* (1932), p. 57.

COURT DECISION ON PUBLIC HEALTH

Measure of damages recoverable because of injury to real property by construction and operation of sewer and sewage disposal tank.—(Kansas City, Mo., Court of Appeals; *Carpenter et al.* v. *City of Versailles*, 65 S.W.(2d) 957; decided Dec. 4, 1933.) An action was brought against the city of Versailles to recover damages for injury to real property alleged to have been caused by the construction and operation of a sewer and sewage disposal tank. In the trial court there was a verdict and judgment for the plaintiffs, and the city appealed.

The first of the plaintiffs' instructions was as follows:

> The court instructs the jury that, under the law and the evidence in this case, your verdict and finding must be for the plaintiffs on the claim for permanent damages and you will assess plaintiffs' damages in accordance with the further instructions in this case.

The court of appeals declared that this instruction was clearly erroneous, saying:

> * * * In it the court assumed that there were permanent damages, and upon so assuming told the jury to ascertain the amount thereof. Under the evidence the question as to whether or not there were permanent damages was for the jury. It was one of fact and not of law.

The plaintiffs made the contention that the said instruction was not erroneous for the reason that the discharge of sewage upon the land was wrongful and that, therefore, they were entitled to recover at least nominal damages. In answer the appellate court said:

* * * Nominal damages may be recovered for the invasion of a right, though actual damages were not sustained. Permanent damages, however, may not be recovered without showing actual damages. The court did not merely direct a verdict for plaintiffs as it could rightfully have done, but it told the jury that plaintiffs were entitled to recover for permanent damages. Such damages were not recoverable, unless the jury found as a fact that plaintiffs had sustained actual damages.

The court declared the measure of damages to be the difference in the reasonable market value of the land immediately before and immediately after the appropriation. "The sewer system is a permanent structure, and the plaintiffs may not recover loss of rents."

The judgment was reversed and the cause remanded.

DEATHS DURING WEEK ENDED MAY 5, 1934

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended May 5, 1934	Corresponding week, 1933
Data from 86 large cities of the United States:		
Total deaths	8,606	8,003
Deaths per 1,000 population, annual basis	12.0	11.2
Deaths under 1 year of age	626	603
Deaths under 1 year of age per 1,000 estimated live births	58	[1] 52
Deaths per 1,000 population, annual basis, first 18 weeks of year	12.5	12.0
Data from industrial insurance companies:		
Policies in force	67,748,069	68,357,913
Number of death claims	13,221	12,654
Death claims per 1,000 policies in force, annual rate	10.2	9.7
Death claims per 1,000 policies, first 18 weeks of year, annual rate	11.0	10.9

[1] Data for 81 cities.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended May 12, 1934, and May 13, 1933

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended May 12, 1934, and May 13, 1933

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933
New England States:								
Maine	3	----	1	2	39	3	0	0
New Hampshire	----	----	----	----	122	40	0	0
Vermont	----	1	----	----	58	3	0	0
Massachusetts	14	20	----	1	1,566	623	2	0
Rhode Island	----	2	----	----	56	----	0	1
Connecticut	2	----	----	4	90	305	0	0
Middle Atlantic States:								
New York	39	80	[1] 9	[1] 12	1,205	3,205	3	5
New Jersey	18	33	12	4	689	1,575	0	1
Pennsylvania	39	56	----	----	3,880	1,635	3	6
East North Central States:								
Ohio	29	41	67	122	1,944	610	3	0
Indiana	15	12	12	14	1,296	292	0	4
Illinois	29	20	19	15	2,700	791	8	15
Michigan	14	19	3	16	367	822	1	2
Wisconsin	3	2	43	20	2,558	458	1	1
West North Central States:								
Minnesota	17	4	----	1	326	676	0	2
Iowa [2]	6	12	2	----	311	83	0	2
Missouri	48	24	41	8	883	202	6	3
North Dakota	2	6	----	----	213	115	0	0
South Dakota	3	3	----	2	256	17	0	0
Nebraska	12	6	----	----	423	184	2	1
Kansas	7	7	3	----	836	301	0	2
South Atlantic States:								
Delaware	1	2	----	1	173	18	0	0
Maryland [3]	11	7	8	4	2,504	21	1	0
District of Columbia	11	6	----	----	94	30	0	1
Virginia	12	11	----	----	1,407	340	2	0
West Virginia	2	6	20	7	141	51	2	0
North Carolina	18	12	90	2	1,861	635	1	1
South Carolina	7	4	246	165	411	283	0	0
Georgia [2]	2	1	----	37	498	121	0	0
Florida	8	11	2	2	578	32	0	0
East South Central States:								
Kentucky	11	7	13	12	418	17	1	1
Tennessee	5	4	21	30	487	45	2	4
Alabama [3]	9	7	36	11	645	157	3	3
Mississippi [3]	5	7	----	----	----	----	0	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended May 12, 1934, and May 13, 1933.—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933
West South Central States:								
Arkansas	4	2	3	11	16	181	2	0
Louisiana	24	11	20	11	216	24	3	0
Oklahoma [4]	14	6	23	11	245	204	0	1
Texas [3]	72	54	171	108	774	1,569	1	4
Mountain States:								
Montana [3]	5	3	25	2	89	24	0	0
Idaho [3]				3	34	29	1	0
Wyoming [3]					39	30	0	0
Colorado	11	5		27	1,082	10	0	0
New Mexico	3	3			98	8	0	0
Arizona	1	3	1		62	74	1	0
Utah	1	1	5	2	107	17	0	0
Pacific States:								
Washington	1	3	1	1	197	65	0	1
Oregon [3]	1			28	43	97	1	0
California	39	30	23	37	731	1,388	2	2
Total	578	554	920	733	32,768	17,410	52	63

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933
New England States:								
Maine	0	0	22	33	0	0	13	3
New Hampshire	0	0	21	8	0	0	0	0
Vermont	0	0	5	8	0	0	4	0
Massachusetts	1	1	198	305	0	0	2	2
Rhode Island	0	0	14	24	0	0	0	1
Connecticut	1	0	70	113	0	0	0	1
Middle Atlantic States:								
New York	2	0	835	770	0	0	9	14
New Jersey	0	1	194	252	0	0	1	5
Pennsylvania	1	1	638	873	0	0	13	13
East North Central States:								
Ohio	1	0	909	1,029	1	7	6	6
Indiana	0	1	113	127	1	2	3	2
Illinois	1	3	513	432	5	10	2	28
Michigan	1	1	629	508	0	0	7	5
Wisconsin	0	0	335	114	32	5	1	2
West North Central States:								
Minnesota	0	0	90	93	6	0	1	0
Iowa [3]	0	0	41	22	4	8	1	1
Missouri	2	0	79	58	7	11	7	1
North Dakota	0	0	41	5	0	0	2	0
South Dakota	0	0	6	13	1	0	0	2
Nebraska	0	0	25	10	12	1	5	0
Kansas	0	1	31	51	8	2	4	2
South Atlantic States:								
Delaware	0	0	11	15	0	0	3	0
Maryland [3]	1	0	38	81	0	0	14	6
District of Columbia	0	0	10	17	0	0	1	0
Virginia	0	0	24	34	0	0	10	6
West Virginia	0	0	57	24	0	0	7	5
North Carolina	0	0	18	37	1	2	2	7
South Carolina	0	0	2	4	0	0	7	17
Georgia [3]	0	0	4	10	1	0	3	8
Florida	0	1	2	2	0	0	4	2
East South Central States:								
Kentucky	0	0	44	32	0	0	9	4
Tennessee	0	0	13	33	2	4	2	13
Alabama [3]	0	0	6	8	0	23	0	7
Mississippi [3]	0	0	13	5	0	0	2	3

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended May 12, 1934, and May 13, 1933.—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933	Week ended May 12, 1934	Week ended May 13, 1933
West South Central States:								
Arkansas	1	0	8	4	1	3	5	4
Louisiana	0	0	27	8	6	1	14	16
Oklahoma [4]	0	1	16	7	4	37	1	4
Texas [3]	2	2	45	52	37	31	15	13
Mountain States:								
Montana [5]	1	0	15	6	1	0	1	6
Idaho [5]	1	0	3	3	14	3	1	1
Wyoming [5]	0	0	2	11	12	0	0	0
Colorado	0	0	15	28	5	4	0	0
New Mexico	0	0	13	5	0	0	0	1
Arizona	10	0	5	5	0	0	1	0
Utah	0	0	8	4	4	0	0	0
Pacific States:								
Washington	0	2	40	50	2	7	8	3
Oregon [3]	0	0	36	37	6	11	3	1
California	20	1	172	150	1	42	11	7
Total	46	16	5,456	5,520	174	214	205	221

[1] New York City only.
[2] Week ended earlier than Saturday.
[3] Typhus fever, week ended May 12, 1934, 9 cases, as follows: Georgia, 4; Alabama, 3; Texas, 2.
[4] Exclusive of Oklahoma City and Tulsa.
[5] Rocky Mountain spotted fever, week ended May 12, 1934, 20 cases, as follows: Montana, 9; Idaho, 2; Wyoming, 5; Oregon 4.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
April 1934										
Arizona	2	9	64	----	329	1	5	106	0	3
Indiana	6	68	73	----	3,953	----	1	721	2	28
Massachusetts	9	59	----	----	9,138	1	1	1,001	0	8
Missouri	17	171	420	56	3,993	----	1	415	22	21
New Jersey	5	57	77	1	2,885	----	1	850	0	14
New York	5	256	----	11	4,608	----	4	3,505	0	33
North Carolina	4	69	185	----	10,321	66	2	110	7	4
North Dakota	----	12	26	----	782	----	0	154	0	3
Wyoming	1	4	----	----	358	----	0	37	8	1

April 1934

Chicken pox:	Cases
Arizona	84
Indiana	395
Massachusetts	1,000
Missouri	368
New Jersey	1,608
New York	2,543
North Carolina	673
North Dakota	61
Wyoming	40
Dysentery:	
Arizona	11
Massachusetts (amoebic)	2
Missouri	9

April 1934—Continued

Dysentery—Continued.	Cases
New Jersey	3
New York (amoebic)	9
New York (bacillary)	8
North Dakota (amoebic)	1
German measles:	
Arizona	93
Massachusetts	70
New Jersey	623
New York	214
North Carolina	215
Wyoming	2
Lead poisoning:	
Massachusetts	1

April 1934—Continued

Lethargic encephalitis:	Cases
Massachusetts	7
Missouri	6
New Jersey	3
New York	7
Mumps:	
Arizona	22
Indiana	50
Massachusetts	549
Missouri	608
New Jersey	444
North Dakota	4
Wyoming	8

April 1934—Contd.

	Cases
Ophthalmia neonatorum:	
Massachusetts	96
New Jersey	2
New York	7
North Carolina	1
Paratyphoid fever:	
Massachusetts	1
New York	7
Rabies in animals:	
Indiana	47
Massachusetts	25
Missouri	28
New Jersey	20
Rocky Mountain spotted fever:	
Wyoming	20
Septic sore throat:	
Massachusetts	18
Missouri	114
New York	74
North Carolina	5
Wyoming	23
Tetanus:	
Massachusetts	2
Tick paralysis:	
Wyoming	1
Trachoma:	
Arizona	54
Massachusetts	2
Trichinosis:	
Massachusetts	1
New Jersey	6
New York	9
Tularaemia:	
Missouri	2
Wyoming	1
Typhus fever:	
New York	1
Undulant fever:	
Missouri	3
New Jersey	5
New York	41
North Carolina	1
Vincent's infection:	
New York	[1] 78
North Dakota	4
Wyoming	2
Whooping cough:	
Arizona	227
Indiana	413
Massachusetts	1,634
Missouri	1,098
New Jersey	946
New York	1,710
North Carolina	1,477
North Dakota	65
Wyoming	8

[1] Exclusive of New York City.

PLAGUE-INFECTED GROUND SQUIRRELS IN TULARE COUNTY, CALIF.

The Director of Public Health of the State of California has reported that on May 9, 1934, 3 lots of ground squirrels, including 7 animals, were found to be plague infected. They were from Tulare County, near Fountain Springs, in the interior of California.

CASES OF VENEREAL DISEASES REPORTED FOR MARCH 1934

This statement is published monthly for the information of health officers in order to furnish current data as to the prevalence of the venereal diseases. The figures are taken from reports received from State health officers. They are preliminary and are, therefore, subject to correction. It is hoped that the publication of these reports will stimulate more complete reporting of these diseases.

State	Syphilis		Gonorrhea	
	Cases reported during month	Monthly case rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
Alabama [1]				
Arizona	42	0.93	134	2.96
Arkansas	357	1.91	199	1.06
California [2]	1,005	1.66	787	1.30
Colorado [1]				
Connecticut [2]	205	1.25	118	.72
Delaware	96	3.98	34	1.41
District of Columbia	151	3.05	109	2.20
Florida	306	1.97	51	.33
Georgia	431	1.48	502	1.72
Idaho	0		0	
Illinois	1,618	2.07	1,396	1.78
Indiana	160	.49	122	.37
Iowa [2]	131	.53	160	.64
Kansas	111	.59	52	.27
Kentucky	232	.88	359	1.36
Louisiana	122	.57	111	.52
Maine	57	.71	47	.59
Maryland	597	3.59	190	1.14
Massachusetts [2]	376	.87	487	1.13
Michigan [2]				
Minnesota	303	1.52	308	1.19
Mississippi	983	4.80	1,580	7.72
Missouri	527	1.44	394	1.07
Montana [2]	22	.41	29	.54
Nebraska	43	.31	72	.52
Nevada [1]				
New Hampshire [2]				
New Jersey [2]				
New Mexico [2]	42	.97	25	.58
New York	5,519	4.26	1,326	1.02
North Carolina	1,116	3.41	384	1.17

See footnotes at end of table.

CASES OF VENEREAL DISEASES REPORTED FOR MARCH 1934—Contd.

State	Syphilis		Gonorrhea	
	Cases reported during month	Monthly case rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
North Dakota	34	.49	54	.79
Ohio	473	.68	207	.30
Oklahoma [2]	157	.64	118	.48
Oregon	108	1.10	72	.73
Pennsylvania	337	.34	219	.22
Rhode Island	78	1.11	39	.56
South Carolina [2]	599	3.43	647	3.70
South Dakota [3]				
Tennessee	1,162	4.36	530	1.99
Texas [2]	54	.09	7	.01
Utah [1]				
Vermont	17	.47	18	.50
Virginia	840	3.44	360	1.47
Washington	88	.55	185	1.16
West Virginia [2]				
Wisconsin [4]	44	.15	95	.32
Wyoming	0		4	.17
Total	18,633	1.71	11,531	1.06

[1] Not reporting.
[2] Incomplete.
[3] Have been reporting regularly but no report received for current month.
[4] Only cases of syphilis in the infectious stage are reported.

NOTE.—Surveys in which all medical sources have been contacted in representative communities throughout the United States have revealed that the monthly rate per 10,000 population is 6.6 for syphilis and 10.2 for gonorrhea.

WEEKLY REPORTS FROM CITIES

City reports for week ended May 5, 1934

[This table summarizes the reports received regularly from a selected list of 121 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference]

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Maine:											
Portland	0	1	0	1	7	3	0	0	0	11	18
New Hampshire:											
Concord	0	----	0	5	1	0	0	0	0	2	8
Manchester	0	----	----	3	----	4	0	----	0	0	5
Nashua	0	----	----	17	----	2	0	----	0	0	----
Vermont:											
Barre	0	----	0	0	0	0	0	1	0	0	5
Burlington	0	----	----	0	----	1	0	----	0	8	6
Massachusetts:											
Boston	1	----	0	186	29	51	0	17	0	60	226
Fall River	0	----	0	0	1	2	0	0	0	3	25
Springfield	0	----	0	3	0	2	0	1	0	11	35
Worcester	1	----	0	2	5	10	0	2	1	11	54
Rhode Island:											
Pawtucket	0	----	0	0	0	0	0	0	0	0	20
Providence	16	----	0	0	3	14	0	4	1	6	50
Connecticut:											
Bridgeport	0	----	0	0	0	22	0	0	0	0	29
Hartford	0	----	0	0	1	7	0	1	1	0	52
New Haven	0	----	1	0	2	2	0	1	0	3	23
New York:											
Buffalo	4	----	0	64	29	15	0	13	0	7	168
New York	34	12	5	229	175	329	0	85	3	117	1,579
Rochester	0	----	1	2	3	55	0	1	0	7	73
Syracuse	0	----	0	50	2	3	0	2	0	66	52

City reports for week ended May 5, 1934—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths all causes
		Cases	Deaths								
New Jersey:											
Camden	0	1	1	21	4	14	0	1	0	0	33
Newark	0	----	0	35	5	14	0	5	0	26	100
Trenton	1	2	0	98	0	13	0	0	0	0	33
Pennsylvania:											
Philadelphia	2	3	2	502	42	112	0	36	0	40	497
Pittsburgh	11	4	3	295	28	34	0	5	1	26	212
Reading	2	----	0	3	1	4	0	1	0	4	30
Scranton	0	----	----	3	----	7	0	----	0	7	----
Ohio:											
Cleveland	5	25	3	161	26	157	0	13	0	95	194
Columbus	0	1	1	1	12	58	0	7	0	42	101
Toledo	2	2	1	110	6	39	0	7	0	118	83
Indiana:											
Fort Wayne	2	----	0	38	1	8	0	2	0	1	32
Indianapolis	0	----	0	416	12	14	0	7	1	36	----
South Bend	0	----	0	12	2	4	0	0	0	0	22
Terre Haute	1	----	0	0	2	3	0	0	0	0	27
Illinois:											
Chicago	7	2	6	563	64	270	0	31	1	141	721
Cicero	----	----	0	----	1	----	----	0	----	----	7
Springfield	2	1	0	79	1	1	0	0	0	15	25
Michigan:											
Detroit	7	2	1	122	27	151	0	20	0	173	305
Flint	0	----	0	27	0	100	0	1	0	15	17
Grand Rapids	0	----	0	4	3	16	0	2	0	3	39
Wisconsin:											
Kenosha	0	----	----	1	----	9	0	----	0	2	9
Madison	0	----	----	14	----	3	0	----	0	12	14
Milwaukee	1	1	1	54	10	111	0	4	0	85	125
Racine	0	----	0	2	0	10	1	1	0	5	14
Superior	0	----	0	3	1	0	0	0	0	0	13
Minnesota:											
Duluth	0	----	0	0	3	0	0	0	0	0	30
Minneapolis	1	----	1	19	9	12	0	2	0	21	116
St. Paul	1	----	0	10	8	8	0	4	0	36	70
Iowa:											
Davenport	0	----	----	19	----	4	0	----	0	0	----
Des Moines	2	----	----	0	----	23	0	----	0	0	32
Sioux City	0	----	----	36	----	1	0	----	0	0	----
Waterloo	0	----	----	----	----	0	0	----	0	10	----
Missouri:											
Kansas City	5	----	0	5	10	30	0	6	0	10	115
St. Joseph	5	----	0	14	3	1	0	1	1	1	14
St. Louis	15	2	3	39	14	23	0	11	0	55	265
North Dakota:											
Fargo	0	----	0	33	0	0	0	0	0	9	12
Grand Forks	0	----	----	0	----	0	0	----	0	2	----
South Dakota:											
Aberdeen	0	----	----	36	----	2	0	----	0	8	----
Sioux Falls	0	----	----	4	----	0	0	----	0	0	6
Nebraska:											
Omaha	2	----	0	150	7	17	5	1	0	10	53
Kansas:											
Topeka	0	----	0	15	2	0	0	0	0	27	4
Wichita	0	----	0	45	4	2	0	1	0	35	25
Delaware:											
Wilmington	0	----	0	32	4	1	0	0	0	2	31
Maryland:											
Baltimore	0	2	0	1,780	18	34	0	17	6	118	233
Cumberland	1	----	0	10	1	3	0	0	0	9	11
Frederick	----	----	----	----	----	----	----	----	----	----	----
District of Col.:											
Washington	3	2	1	97	15	10	0	7	0	35	158
Virginia:											
Lynchburg	0	----	0	19	0	0	0	1	0	8	14
Norfolk	0	----	0	13	2	0	0	1	0	2	23
Richmond	0	----	1	167	5	0	0	4	0	0	45
Roanoke	1	----	0	3	3	1	0	0	0	7	20
West Virginia:											
Charleston	0	----	0	15	2	1	0	0	0	9	18
Huntington	0	----	----	0	----	8	0	----	0	0	----
Wheeling	0	----	1	7	1	18	0	1	0	9	19

City reports for week ended May 5, 1934—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
North Carolina:											
Raleigh	0	----	0	7	1	0	0	1	0	23	17
Wilmington	0	----	0	0	4	0	0	0	0	0	17
Winston-Salem	0	1	1	8	1	0	0	1	0	8	12
South Carolina:											
Charleston	0	7	1	18	0	1	0	2	1	1	28
Columbia	0	----	0	0	1	0	0	0	0	0	20
Greenville	0	----	0	1	1	0	0	0	0	2	8
Georgia:											
Atlanta	1	5	1	45	7	1	0	3	1	2	79
Brunswick	0	----	0	10	0	0	0	0	0	0	5
Savannah	0	7	1	50	1	0	0	1	0	4	20
Florida:											
Miami	1	----	1	211	1	1	0	4	1	4	26
Tampa	0	1	1	166	3	0	0	2	0	0	25
Kentucky:											
Ashland	0	----	----	50	----	0	0	----	0	0	----
Lexington	1	----	0	36	1	2	0	2	0	13	20
Louisville	6	1	1	67	4	15	0	0	0	53	74
Tennessee:											
Memphis	2	----	1	51	14	2	0	8	0	20	92
Nashville	0	----	1	4	6	0	0	1	0	4	* 60
Alabama:											
Birmingham	1	3	0	71	4	3	0	6	1	1	61
Mobile	0	----	0	2	1	1	0	3	1	0	23
Montgomery	1	----	----	51	----	0	0	----	0	1	----
Arkansas:											
Fort Smith	0	----	----	0	----	0	0	----	0	0	----
Little Rock	0	----	0	9	1	3	0	0	0	1	2
Louisiana:											
New Orleans	18	1	0	45	11	7	0	11	0	1	145
Shreveport	1	----	0	9	3	1	0	8	0	2	37
Oklahoma:											
Oklahoma City	1	----	0	0	11	2	0	2	0	0	49
Texas:											
Dallas	9	2	2	----	8	3	0	1	0	21	51
Fort Worth	1	----	0	1	4	5	1	1	3	8	----
Galveston	0	----	0	0	2	0	0	0	0	0	14
Houston	9	----	0	5	6	3	3	6	1	0	76
San Antonio	0	----	0	10	2	0	1	2	0	0	52
Montana:											
Billings	0	----	0	0	0	0	0	0	0	1	7
Great Falls	0	----	0	10	2	0	0	0	0	1	6
Helena	0	----	0	0	0	0	0	0	0	0	3
Missoula	0	----	0	0	0	0	0	0	0	5	5
Idaho:											
Boise	0	----	0	5	1	0	0	1	0	2	9
Colorado:											
Denver	1	31	1	466	8	7	0	5	0	67	74
Pueblo	0	----	0	15	0	1	0	0	0	12	9
New Mexico:											
Albuquerque	1	----	0	56	0	3	0	0	0	5	7
Utah:											
Salt Lake City	0	----	0	39	1	9	0	1	0	83	22
Nevada:											
Reno	0	----	0	10	1	0	0	0	0	4	5
Washington:											
Seattle	1	----	----	4	----	23	1	----	0	53	----
Spokane	0	----	0	3	2	2	0	0	0	20	25
Tacoma	0	----	0	6	2	0	0	1	0	7	23
Oregon:											
Portland	1	----	0	20	4	20	0	0	1	18	63
Salem	0	----	----	1	----	0	0	----	0	0	----
California:											
Los Angeles	17	13	0	44	11	49	0	15	1	58	234
Sacramento	2	----	0	3	0	1	0	2	0	8	27
San Francisco	1	1	1	216	8	13	0	4	0	17	137

City reports for week ended May 5, 1934—Continued

State and city	Meningococcus meningitis		Poliomyelitis cases
	Cases	Deaths	
Massachusetts:			
Boston	1	0	0
Springfield	0	1	0
New York:			
New York	4	1	2
New Jersey:			
Newark	1	0	0
Pennsylvania:			
Philadelphia	2	1	1
Pittsburgh	3	2	0
Ohio:			
Cleveland	2	1	1
Toledo	1	1	0
Illinois:			
Chicago	10	4	0
Minnesota:			
Minneapolis	1	0	0
Iowa:			
Sioux City	0	1	0
Missouri:			
Kansas City	1	1	0
St. Louis	2	1	0
Virginia:			
Lynchburg	0	1	0
Richmond	0	1	0
North Carolina:			
Winston-Salem	1	1	0
Alabama:			
Birmingham	1	0	0
Oklahoma:			
Oklahoma City	2	0	0
Oregon:			
Portland	0	0	1
California: [1]			
Los Angeles	1	0	2

Lethargic encephalitis.—Cases: Chicago, 1; Detroit, 1; Washington, 1.

Pellagra.—Cases: Boston, 2; Atlanta, 1; Savannah, 1; Nashville, 1; Birmingham, 1; New Orleans, 2; Dallas, 1; Los Angeles, 2.

[1] For the week ended May 12, 1934, 7 cases of poliomyelitis were reported in Los Angeles City, Calif., and 8 cases in the county of Los Angeles outside of the city. For the week ended May 12, 1934, the State of California reported 20 cases of poliomyelitis, and for the week ended May 19, the State reported 36 cases.

FOREIGN AND INSULAR

CANADA

Quebec Province—Communicable diseases—2 weeks ended May 5, 1934.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the 2 weeks ended May 5, 1934, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	2	Ophthalmia neonatorum	4
Chicken pox	141	Poliomyelitis	2
Diphtheria	43	Puerperal fever	3
Dysentery	1	Scarlet fever	125
Erysipelas	10	Tuberculosis	110
German measles	21	Typhoid fever	41
Influenza	2	Undulant fever	1
Lethargic encephalitis	1	Whooping cough	211
Measles	626		

IRISH FREE STATE

Vital statistics—Fourth quarter 1933.—The following statistics for the Irish Free State for the fourth quarter ended December 31, 1933, are taken from the quarterly return of marriages, births, and deaths, issued by the registrar general, and are provisional:

	Number	Rates per 1,000 population		Number	Rates per 1,000 population
Population	2,992,000		Deaths from—Continued.		
Marriages	3,354	4.50	Diphtheria	128	
Births	13,768	18.40	Influenza	164	0.22
Total deaths	9,730	13.00	Measles	14	
Deaths under 1 year	933	[1]	Puerperal sepsis	29	[2] 2.11
Deaths from:			Scarlet fever	25	
Cancer	842	1.13	Tuberculosis (all forms)	791	1.06
Diarrhea and enteritis (under 2 years)	158		Typhoid fever	20	
			Whooping cough	66	

[1] Deaths under 1 year per 1,000 births, 68.
[2] Per 1,000 births.

PANAMA CANAL ZONE

Communicable diseases—January–March 1934.—During the months of January, February, and March 1934, certain communicable diseases, including imported cases, were reported in the Panama Canal Zone and terminal cities, as follows:

Disease	January		February		March	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Anthrax					1	
Chicken pox	19		30		47	
Diphtheria	20		14	2	10	1
Dysentery (amoebic)	21	2	23	1	5	1
Dysentery (bacillary)					1	1
Leprosy			1		1	1
Malaria	183	6	117	2	66	3
Measles	10		3		6	
Mumps	3		1		1	
Pneumonia		29		20		19
Relapsing fever	1					
Scarlet fever					1	
Tuberculosis		31		11		22
Typhoid fever	2	1	4		2	
Typhus fever			1		1	
Whooping cough	14		14		24	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, International Office of Public Hygiene, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

[C indicates cases; D, deaths; P, present]

Place		Oct. 1–28, 1933	Oct. 29–Nov. 25, 1933	Nov. 26–Dec. 30, 1933	Dec. 31, 1933–Jan. 27, 1934	Week ended—												
						February 1934				March 1934					April 1934			
						3	10	17	24	3	10	17	24	31	7	14	21	28
India	C	9,939	7,571	8,161	4,458	1,036	956	1,153	1,317	1,207	1,872	2,029	.....	.....	.....	.....	.....	.....
	D	4,846	3,923	3,799	2,439	476	492	510	591	506	813	910	.....	.....	.....	.....	.....	.....
Bombay Presidency	C	1,376	1,100	1,204	434	78	37	59	89	42	20	21	.....	24	.....	.....	.....	.....
	D	634	594	639	231	42	22	29	35	27	7	13	.....	11	.....	.....	.....	.....
Bombay	C	4	1	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	2	2
Calcutta	C	68	55	63	78	37	16	41	32	40	40	108	82	111	124	129	180	141
Chittagong	C	1	.....	4	2	.....	.....	.....	.....	.....	3	1	.....	.....	3	1	.....	3
Madras Presidency	C	727	1,039	2,708	1,344	165	.....	334	250	151	237	170	.....	.....	.....	.....	.....	.....
	D	292	453	1,012	552	54	.....	131	105	66	101	60	.....	.....	.....	.....	.....	.....
Madras	C	4	6	121	16	.....	6	9	.....	.....	2	1	1	.....	.....	.....	.....	.....
	D	1	4	56	6	.....	1	5	.....	.....	1	.....	1	.....	.....	.....	.....	.....
Rangoon	C	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....
Vizagapatam	C	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
India (French):																		
Chandernagor	D	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	3	.....	.....	.....
Karikal	C	.....	.....	2	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pondichery	C	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
India (Portuguese)	C	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Indo-China (see also table below): Rachgia	C	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Philippine Islands: [1]																		
Antique Province	C	17	8	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	D	16	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bohol Province	C	87	173	140	292	30	29	66	95	62	49	13	12	3	2	.....	.....	.....
	D	47	101	94	200	21	19	41	61	41	26	7	6	4	2	.....	.....	.....
Cebu Province	C	63	71	75	34	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
	D	36	45	54	30	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Cebu	C	21	17	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	D	8	8	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Naga	C	.....	18	4	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	D	.....	9	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Place		October 1933			November 1933			December 1933			January 1934			February 1934			March 1934	
		1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-28	1-10	11-20
Iloilo Province	C	12	2			1												
	D	11	3			1												
Iloilo	C		2															
	D		3															
Occidental Misamis Province	C									1								
Occidental Negros Province	C			9	27		7	5	1				2	34	12	3		
	D			8	23		4	6	1				1	19	11	3		
Oriental Negros Province	C			6	96	13	4	27	3	12	13		3	2	1			
	D			6	52	10	2	19	3	7	6		5	5	1			
Samar Province	C	[1] 20											18					
	D	[1] 14											18					
Siam	C					1												
Bangkok	C								1									
On vessel: S.S. Chyebassa at Calcutta	C												1					
Indo-China (French) (see also table above):																		
Cambodia [2]	C											2	2	1	1			
	D											1		1	1			
Cochin-China [3]	C	5	5					2	1	1		1	2	1	1	4	1	5
	D	5	3					2	1	1		1	2	1	1	3	1	5

[1] No cholera was reported in the Philippine Islands during the week ended May 12, 1934.
[2] For the month of October 1933.
[3] Reports incomplete.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE[1]

[C indicates cases; D, deaths; P, present]

Place		Oct. 1–28, 1933	Oct. 29–Nov. 25, 1933	Nov. 26–Dec. 30, 1933	Dec. 31, 1933–Jan. 27, 1934	Week ended— February 1934				March 1934					April 1934			
						3	10	17	24	3	10	17	24	31	7	14	21	28
Angola.[2]																		
Argentina (see also table below) Buenos Aires Province	C					1												
	D					1												
Azores: Ponta Delgada	C				4													
	D				1													
Belgian Congo: Stanleyville Province	C																1	
Bolivia. (See table below.)																		
British East Africa (see also table below):																		
Kenya	C	18	37	21	19	2	1	4			2		2					
Tanganyika	D		1								4							
Uganda	C	63	81	77	44	8	6	7	6	4	2	6	1					
	D	61	79	72	42	8	6	7	6	4	1	6	1					
Ceylon: Colombo	C	1		1	1			1	1	1		2	3		3	3	2	6
	D	1		1	1			1	1	1		2	3		1	4	1	4
Plague-infected rats				1	3	3			1		1						1	1
China: Manchuria.[2]																		
Dutch East Indies: West Java	C	[4] 816	1,568	1,671	1,960	419	518	601										
	D	[4] 814	1,560	1,576	1,955	419	518	601										
Egypt:																		
Alexandria	C			1														
Asyut	C				1	2	1	1					1	2	2	17	5	2
Faiyum	C	1			1						1							1
Gharbiya	C	2			1													
	D	3			1													
Girga	C						3											
France: Marseille—Plague-infected rats			1															
Hawaii Territory: Hawaii Island—Hamakua—Plague-infected rats			2	5	1													
India	C	11,755	11,037	12,687	16,894	3,929	4,645	4,307	4,716	4,808	6,365	4,015						
	D	6,430	5,921	7,338	10,915	2,528	3,143	2,867	2,996	3,110	4,633	2,838						
Bassein	C			1	5				3	3	3	3	1		1	2	2	2
Plague-infected rats				2					1	1	2					2		
Bombay Presidency	C	4,922	5,799	5,501	4,906	1,127	1,225	1,340	1,179	841	837	478		489				
	D	2,928	3,621	3,555	3,235	719	783	865	744	573	541	346		347				

Bombay	C	3	1	1	1	5	6	5	1	1	1	1	2	4	.....	2	2	.....
Plague-infected rats		1	8	1	.....	2	2	4	1	2	4	10	.....	2	1	.....	16	.....
Poona	C	475	61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	D	527	53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Calcutta	C	.....	.....	[4] 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	D	.....	.....	[4] 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delhi	C	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Madras Presidency	C	521	537	676	881	209	.....	147	143	145	134	82	.....	.....	.....	.....	.....	.....
	D	294	257	317	497	110	.....	83	97	76	69	51	.....	.....	.....	.....	.....	.....
Rangoon	C	1	1	.....	.....	3	1	3	.....	.....	.....	.....	1	2	.....	1	1	1
Plague-infected rats		.....	2	3	1	.....	1	2	1	3	1	.....	.....	.....	.....	1	.....	1
India (Portuguese)	C	.....	.....	.....	.....	2	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....
Indo-China (see also table below):																		
Pnom-Penh	D	2	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
Saigon and Cholon	C	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Iraq: Baghdad	C	1	2	5	1	1	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Libya	C	.....	.....	11	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	D	.....	.....	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madagascar. (See table below.)																		
Peru. (See table below.)																		
Portuguese West Africa	C	.....	.....	.....	.....	.....	P	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Senegal. (See table below.)																		
Siam	C	.....	.....	.....	.....	3	.....	.....	.....	.....	1	1	.....	.....	4	.....	.....	.....
South-West Africa.[6]																		
Union of South Africa:																		
Cape Province	C	.....	18	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Orange Free State	C	.....	.....	1	13	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Transvaal	C	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
United States—California: [7]																		
Kern County—Plague-infected ground squirrels		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17	11	36	8	9
Santa Clara County—Plague-infected ground squirrels		.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tulare County—Plague-infected ground squirrels		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	7	27	9	.....
On vessels:																		
S.S. Angkor at Beirut from Marseille	C	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
At Tuticorin from Colombo	C	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Including plague in the United States and its possessions.
[2] During December 1933 and January 1934, 32 cases of plague with 17 deaths were reported in Angola.
[3] A report dated Nov. 13, 1933, states that plague was reported in Manchuria, China, as follows: Fengtien Province, 249 cases; Hsingan Province, 200 cases; Jehol Province, 81 cases; Kirin Province, 479 cases.
[4] For 2 weeks.
[5] Imported.
[6] 116 cases of plague with 5 deaths were reported in Ovamboland, South-West Africa, from Jan. 1 to Dec. 2, 1933. Antiplague measures have been taken.
[7] For the week ended May 5, 1934, 2 lots including 2 plague-infected ground squirrels were reported in Kern County, and 3 lots including 5 plague-infected ground squirrels were reported in Tulare County, Calif. For the week ended May 12, 1934, 3 lots including 7 plague-infected ground squirrels were reported in Tulare County, Calif.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE—Continued

[C indicates cases; D, deaths; P, present]

Place		October 1933	November 1933	December 1933	January 1934	February 1934	March 1934
Argentina (see also table above)	C	6	4	------	------	------	1
	D	2	1	------	------	------	------
Bolivia	C	------	5	------	------	------	------
British East Africa (see also table above):							
Kenya	C	20	36	14	19	------	------
Uganda	C	71	83	63	49	24	14
Indo-China (see also table above):							
Cambodia	D	8	2	1	2	4	17
Cochin-China	C	------	------	1	1	1	1
Madagascar	C	------	------	------	249	------	------
	D	------	------	------	236	------	------
Peru	C	18	19	12	7	6	10
Callao	C	7	------	------	------	------	------
Senegal:							
Dakar [1]	C	4	15	3	1	2	6
	D	9	10	3	1	2	6
Medina [1]	C	1	1	1	------	------	------
	D	1	1	1	------	------	------
Thies [1]	C	------	------	------	------	------	2

[1] Reports incomplete.

SMALLPOX

Place	Oct. 1–28, 1933	Oct. 29–Nov. 25, 1933	Nov. 26–Dec. 30, 1933	Dec. 31, 1933–Jan. 27, 1934	Week ended—												
					February 1934				March 1934					April 1934			
					3	10	17	24	3	10	17	24	31	7	14	21	28
Algeria:																	
Algiers Department C	------	1	------	2	------	1	------	------	------	------	2	------	------	2	------	------	------
Constantine Department C	------	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Arabia: Oman Sultanate—Muscat (see also table below) C	------	------	------	------	------	------	------	------	------	5	------	------	------	------	------	------	------
Belgian Congo (see also table below) C	------	------	------	4	------	------	------	------	------	------	------	------	------	------	------	------	------
Bolivia. (See table below.)																	
Brazil:																	
Porto Alegre (alastrim) C	5	1	1	1	------	------	------	------	------	------	------	------	------	------	------	------	------
Santos C	------	------	4	2	------	------	------	------	------	------	------	------	------	------	------	------	------

British East Africa:																		
Kenya	C				67	7	13	722		12		[1] 467	4	71	23			
Tanganyika	C	52	202	71	39	16		15	19		19	8	25	4				
British Somaliland	C				18	9	3	1		7		8		4	2			
British South Africa:																		
Northern Rhodesia	C	16		116	1													
Southern Rhodesia	C				1			1										
Canada:																		
Alberta	C			1														
British Columbia	C												1		[2] 1	1		
Manitoba	C										[1] 1							
Ontario	C		1		[1] 1													
Prince Edward Island	C			[1] 1														
Quebec	C			1	1													
Saskatchewan	C								[1] 1									
Ceylon: Colombo	C		1															
China:																		
Amoy	C				2								1	3	3			
Canton	C		2	6	14		1	4	2	9	9	6	5	10	3	3	2	1
Dairen	C	3	17	127	68	100	39	19	12	14	18	30	34	27				
Hangchow	C		1	2	2		1		3	2	4		2	1	2			
Hankow	C			2							1							
Hong Kong	C		1	2	3	2		5	9	13	7	5	24	11	5	10	11	7
Kwantung Leased Territory	C				38	51		22	17	11			40		15			
Macao	D							3	1	2	2	3	3	3	2	4		1
Manchuria—Mukden.[3]																		
Nanking	C			1		1	1	2			1		2	1	1			
Shanghai	C	3	17	57	108	29	26	30	28	43	35	35	49	26	32	29	32	26
South Manchuria Railway Zone	C				58	57		16	26	7			20					
Swatow	C	2	1		1				1	1				1	1			
Tientsin	C			1			1			2					1			
Dahomey. (See table below.)																		
Ecuador. (See table below.)																		
Egypt:																		
Alexandria	C		3		5	1			2									
Aswan	C				34		19		5	7		5			12	6		
Asyut	C	40	7	30	7				1	2				2	2	2		
Beni-Suef	C	13																
Cairo	C			1					1		1	1	2	1	1	3	7	
Dakahliya	C			87	12								2					
Faiyum	C	1	13	3														
Gharbiya	C	2	7	8						5		2	1		2	2		
Girga	C	9		20	17		5		3	5		4	19	4				
Minya	C			32	172		68		37	17		30	18	8	5	6		
Qena	C	25	28	24	6		5						6	3	1			
Provinces	C	95	168	265	369	108	103		54		31	42	62	28	30	22		
Eritrea: Asmara	C											[2] 1						
Gold Coast	C										P							

[1] For 2 weeks.
[2] Imported.
[3] From Jan. 1, 1934, to Feb. 9, 1934, 140 cases of smallpox with 17 deaths were reported in Mukden, Manchuria, China.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place		Oct. 1–28, 1933	Oct. 29–Nov. 25, 1933	Nov. 26–Dec. 30, 1933	Dec. 31, 1933–Jan. 27, 1934	Week ended—												
						February 1934				March 1934					April 1934			
						3	10	17	24	3	10	17	24	31	7	14	21	28
Great Britain:																		
England and Wales	C	10	9	27	32	8	16	20	23	11	5	11	5	3	6	3	3	9
Blackburn	C				1			13	7	2	1	1						
	D					1			[3]3									
London	C	10	9	27	31	8	16	16	15	9	4	10	5	3	6	3	2	9
London and Great Towns	C	10	9	27	32	8	16	19	23	11	5	11	5	3	6	3	3	9
Greece (see also table below): Salonika	C						3	3	3	3							2	
Honduras: Tegucigalpa	C																	
India	C	4,699	5,677	10,824	12,154	3,837	5,564	5,313	6,439	4,967	8,329	6,888						
	D	1,079	1,232	2,707	2,937	918	1,149	1,313	1,330	1,047	1,868	1,501						
Bassein	C	12	12	33	62	23	17	13	17	11	6	2	10	3		3	3	1
	D	7	6	11	26	3	8	6	4	4	4	5	5	1		2	2	1
Bombay Presidency	C	599	673	1,385	1,591	448	537	777	803	809	873	900		872				
	D	91	115	286	336	90	95	127	158	123	155	135		190				
Bombay	C	4	4	20	31	26	11	8	11	10	9	14	12	11	11	11	7	13
	D	4	3	13	11	7	7	5	5	5	6	6	6	5	7	5	5	11
Calcutta	C	8	13	75	181	80	100	105	81	76	55	76	87	97	90	63	59	42
	D	3	5	42	115	48	58	78	61	56	42	46	66	68	65	56	49	35
Cochin	C	1			12	5	4	1	1	1	3	5	6	5	5	4		8
Karachi	C	2	1	[4]4	15	3	4	8	6	14	8	6	3		3	3	6	2
Madras Presidency	C	2,432	2,479	2,297	3,862	1,191		1,286	1,984	2,317	2,452	2,844						
	D	507	447	372	711	197		297	276	360	443	405						
Madras	C	81	41	83	113	24	23	27	21	16	20	23	33	27	23	26		23
Negapatam	C	9	17	20	4							2				3		4
Rangoon	C	1	2	9	14	8	2	9	9	2	6	9	12	19	21	22	21	15
Tuticorin	C	1	6		4		6						1					
Vizagapatam	C	1	2	3	4	1	5	6	1	5	1	5	7	9	3	2	8	9
India (French):																		
Chandernagor	D				4		1	1					1		1			
Karikal	C	1	3	11	2			1	1	1		2	2	2				
	D	1	3	6	2					1			2	2				
Pondichery	C	101	71	93	76	28	32	36	26	37	32	30	56	24	41			
	D	63	32	50	43	11	18	16	14	25	14	16	27	17	22			
Indo-China (see also table below):																		
Haiphong	C				114	31	5	41	34	19	22	12	8	5	6	10	7	3
Pnom-Penh	C															1		

Saigon and Cholon	C			1									1					6
Tourane	C																	
Iraq	C	36	135	34	17	17					8					9		
Amara Liwa	C				19													
Baghdad	C	2	3	3	2	1	1	1		2	1				1			
Basra	C		3	1												4		
Japan	C					23	6				11		6					
Kobe	C														1			
Moji	C									2				1				
Osaka	C							1		1	1			1	1	1	1	
Tokyo	C				1								3		1			
Yokohama	C					2												
Lithuania. (See table below.)																		
Mexico (see also table below):																		
Chihuahua	D						1											
Guadalajara	D						1											
Juarez.[3]																		
Mexico, D.F.	C				2				12	1	2							
Monterrey	D		1	1				1										
Saltillo	D			2					1							1		
San Luis Potosi	D				1													
Tampico	C				2										1			
Torreon	D	2									[1]1							
Vera Cruz	C	1	1															
Morocco. (See table below.)																		
Nigeria	C	166	509	184	39	[1]159		[1]778		[1]167		[1]570						
Lagos	C				7	1	2	3	9	3	3	4	3	6				
Nyasaland. (See table below.)																		
Palestine	C									10	2	5						
Persia	C	45	12	25														
	D	5	5	2														
Teheran	C	11	8	3	8	5	1	2	2									
	D	4	2	2	5	3		1	2						1			
Peru. (See table below.)																		
Poland	C	1	1							1								
Portugal (see also table below):																		
Lisbon	C		1		5	2		1	1		1	1		2	1			1
Oporto	C	2	2				2										3	[6]24
Siam	C				1									4				
Sierra Leone	C	534	578	260	143	[1]162		[1]27		[1]76		[1]105		[1]248				
Spain	C	11	40		23		3	6		6	8	6	5	26	19	9		
Sudan (Anglo-Egyptian)	C		15	61	34	13	41	6	6	14	25	6	40	5	16	2	1	
Syria:																		
Beirut	C			20	61	12	8	13	12	7				1				
Provinces	C	34	35	44	101	8	14	12	4			12	6	11	19	5		31
Turkey. (See table below.)																		

[1] For 2 weeks.
[3] Imported.
[4] Includes 1 imported case.
[5] Dec. 18, 1933: 90 cases of smallpox were reported in Juarez, Mexico, with 18 deaths occurring from Dec. 1 to 16, 1933.
[6] For 4 weeks.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

On vessels:

S.S. Rhona at Penang from Madras	1 case	Nov.	2, 1933
S.S. Enterprise at Karachi	1 case	Dec.	5, 1933
S.S. Jaldurga at Rangoon from Gogalpore	1 case	Dec.	6, 1933
S.S. Pembrokeshire at Hong Kong	Present	Dec.	10, 1933
S.S. Cremer at Singapore from Penang and Belawan	1 death	Dec.	28, 1933
S.S. Jufuku Maru at Chefoo from Dairen	Present	Jan.	7, 1934
S.S. Haiching at Amoy	Present	Jan.	19, 1934
S.S. Elysia at Suez from Bombay	1 case	Jan.	31, 1934
S.S. Red Sea at Colombo from Singapore	2 cases	Jan.	31, 1934
S.S. Talamba at Rangoon from Calcutta	1 case	Feb.	9, 1934
S.S. Jaldurga at Rangoon from Gogalpore	1 case	Feb.	14, 1934
S.S. Neuralia at Shanghai	1 case	Feb.	14, 1934
S.S. Varsova at Karachi from Bombay	1 case	Feb.	17, 1934

On vessels—Continued.

S.S. King City at Victoria	2 cases	Feb.	19, 1934
S.S. Alice Moller at Shanghai	1 case	Feb.	20, 1934
S.S. Ranpura at Bombay from Shanghai	1 case	Feb.	26, 1934
S.S. Minnie Moller at Shanghai	1 case	Feb.	27, 1934
S.S. Shantung at Hong Kong	Present	Mar.	2, 1934
S.S. Pronto at Hong Kong	Present	Mar	12, 1934
S.S. Ekma at Rangoon from Calcutta	1 case	Mar.	17, 1934
S.S. Norviken at Hong Kong	Present	Mar.	17, 1934
S.S. Sandviken at Hong Kong	Present	Mar.	22, 1934
S.S. Moldavia at Port Said from Bombay	1 case	Mar.	26, 1934
S.S. Hydrangea at Hong Kong from Swatow	1 case	Mar.	28, 1934
S.S. Yuen Sang at Hong Kong from Swatow	1 case	Apr.	3, 1934

Place		October 1933	November 1933			December 1933			January 1934			February 1934			March 1934
			1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-28	1-10
Dahomey	C	25	9	9	5										
	D	6	6	6											
Indo-China (see also table above)	C	137	24	22	11	54	65	63	92	99	124	113	145	231	201
	D	38	10	8		10	12	7	14	14	27	26	32	27	20

Place		October 1933	November 1933	December 1933	January 1934	February 1934	March 1934
Arabia (see also table above)	C			20			
	D			14			
Belgian Congo (see also table above)	C				126	178	
Bolivia	C	34	39	21			42
Ecuador	C				4		[1] 3
Greece (see also table above)	C	1	2			3	
Lithuania	C				49		

Place		October 1933	November 1933	December 1933	January 1934	February 1934	March 1934
Mexico (see also table above)	C			7			
Morocco	C	3	16		1	1	[1] 2
Nyasaland	C	289	391	132	263		
Peru	C	23	21	25	19		
Portugal (see also table above)	C	214	323	128	111		
	D	31	21	16	19		
Turkey	C		12	17	23	16	

[1] Imported.

TYPHUS FEVER

Place		Oct. 1–28, 1933	Oct. 29–Nov. 25, 1933	Nov. 26–Dec. 30, 1933	Week ended—															
					January 1934				February 1934				March 1934					April 1934		
					6	13	20	27	3	10	17	24	3	10	17	24	31	7	14	21
Algeria:																				
Algiers Department	C	1		9							1	3			6	6			6	
Constantine Department	C	5	8	7	2	6	1	2	5	3	5	9		[1] 39	8	4		5	4	5
Bone	C		1		1	1													1	
Philippeville	C											1								
Oran Department	C	1		1										2		2	2		1	
Australia: Sydney	C														1					
Basutoland. (See table below.)																				
Bolivia. (See table below.)																				
British East Africa:																				
Tanganyika	C													19						
Uganda	C	2	2	5			1	1		1		1		3	12					
Bulgaria	C	3	3	8	7	3	8	7	16	15	11	12	11	3	3	10	15	15	12	
Chile	C	2,620	2,764	2,714	368	308														
Antofagasta	C			4																
San Pedro.[2]																				
Santiago	C	1,159	1,211	1,156	156	141	108	127	98	78	61		73	37	24	34				
Valparaiso	C	43	54	58	4	5	2	4	3	4	2	7	5	3	1					
China:																				
Hankow	C		1	1						1										
Harbin	C																			
Kwantung Leased Territory	C			4										1			1	1		
Nanking	C	1									1									
Shanghai	C	1	1	3				3			1	2	3							
South Manchuria Railway Zone	C																			
Chosen. (See table below.)																				
Czechoslovakia. (See table below.)																				
Egypt:																				
Alexandria	C			2			1	3				2	1	7	2	3	1		2	2
Asyut	C		1	1																
Beheira	C	24	43	113		28	50	72	71	70		138		180	160	137	131		165	
Cairo	C											1	1	4	1	1		4	2	2
Dakahliya	C		7	14		12	26	47	17	36			32			44	50		27	
Damietta	C			1									1	12	1	3	3	5	2	1
Gharbiya	C	10	20	105		64	86	77	78	55		36	106	65	132	85	138		62	
Girga	C							4	2			1	12	1						
Minufiya	C	12	5	26		8	17	35	56	58		88	94	89			92		102	

[1] For 2 weeks.

[2] Incomplete reports from San Pedro, Chile, for the month of November 1933 show 113 cases of typhus fever.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

TYPHUS FEVER—Continued

[C indicates cases; D, deaths; P, present]

Place		Oct. 1–28, 1933	Oct. 29–Nov. 25, 1933	Nov. 26–Dec. 30, 1933	Week ended— January 1934				February 1934				March 1934					April 1934		
					6	13	20	27	3	10	17	24	3	10	17	24	31	7	14	21
Egypt—Continued.																				
Port Said	C															2			1	
Qena	C	3	6	2																
Provinces	C	52	108	278	110	116	180	238	226	219	271	284	351	387	431	381	427	394	405	
Greece. (See table below.)																				
Guatemala. (See table below.)																				
Hungary	C	5	10							9	1	3	7	1	3					
Iraq:																				
Amara	C	4																		
Baghdad	C																		17	
Kirkuk Liwa	C																		30	
Ireland, Northern: Londonderry	C			1																
Irish Free State:																				
Kerry County—Dingle	C	4	4							1	1									
Killarney	C																			
Roscommon County—Castlerea	C			3																
Waterford County—Lismore	C															1	1			
Japan:																				
Aomori Prefecture	C				3		10					2								
Kobe	C	1																		
Osaka	C		1																	
Lithuania	C			33	3	9	12	20	21	14	15	8	12	6	4	18	7	12	32	12
Mexico (see also table below):																				
Mexico, D.F	C	14	46	46		31	32	20	18	18	24	18	27	28						
San Luis Potosi	D	1				1										2	1			
Torreon	C		3																	
Morocco (see also table below)	C	2		7	1	2	1		1	9		12	20	20	10	6	5	17	17	19
Palestine	C	4	4	2																
Persia	C	20	11	3		4	11		4	12	19	30	21	28		38	32	19		
Teheran	C						6	6	2	2	5	4	2	5	4	2	5	1		
Peru. (See table below.)																				
Poland	C	66	120	334	97	99	150	169	161	161	155	161	209	200	179	169	191	160	172	173
	D	5	10	19	6	6	13	9	4	15	11	8	12	19	7	12	10	12	6	

Rumania. (See table below.)																					
Scotland	C											1									
Spain: Madrid	C	1																			
Syria	C			15																	
Trans-Jordan	C									2	1	5	5	3	3	2		1		7	
Tunisia:																					
Tunis	C	2				1	1								1					1	
Provinces	C								29		28	42	22	19	13	15	19	41	31	35	
Turkey. (See table below.)																					
Union of South Africa. (See table below.)																					
Yugoslavia. (See table below.)																					

Place		October 1933	November 1933	December 1933	January 1934	February 1934	March 1934
Basutoland	C		366		362		
Bolivia	C	129	39	88			79
Chosen	C	3	8	4	3	1	
Czechoslovakia	C	1	12	14	7	17	112
Greece	C	3	5	3	2	2	
Guatemala	C		6	5	29	16	17
Mexico (see also table above)	C			75	94		
Morocco (see also table above)	C	2	1	8	4	30	54
Peru	C	55	341	137	15		
Rumania	C	28	35	180	399	489	
Turkey	C	20	23	27	32	24	14
Union of South Africa:							
Cape Province	C	166		98	109	220	
Natal	C	42			3	19	
Orange Free State	C	183		241	297	352	
Transvaal	C	24		8	11	3	
Yugoslavia	C	38	13	66	298	357	361

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

YELLOW FEVER

[C indicates cases; D, deaths; P, present]

Place		Oct. 1-28, 1933	Oct. 29-Nov. 25, 1933	Week ended— December 1933 2	9	16	23	30	January 1934 6	13	20	27	February 1934 3	10	17	24	Mar. 3, 1934
Brazil:																	
Acre Territory—Rio Branco	C							1									
Amazonas State—Esperanca	C							1									
Ceara State—St. Mathew	C																1
Mato Grosso State.[1]																	
French West Africa:																	
Guinea	C					2			2								
Niger Territory	C	2															
Gold Coast:																	
Dunkwa	C									1							
Keta	C								1								
N'Kaw Kaw	C			1													
Togoland	C	[2]1	1														
Ivory Coast: Abengourou	C						1										
Nigeria: Kano	C		1														
Senegal:																	
Bakel	C	1															
Birkelane	C			2													
	D			1													
Dakar	C		1														
Kaffrine	C	1								1							
Kaolak	C			1							1						
Podor	C											[3]1					
Sebikotane	C		1		1												

[1] For the week ended Apr. 28, 1934, 1 case of yellow fever with 1 death was reported in Mato Grosso State, Brazil, in a place distant from the coast and not connected by rail.
[2] Suspected.
[3] Imported.